

**Notice of Allowability**

Application No.

10/763,042

Examiner

Vinod Kumar

Applicant(s)

SHAW ET AL.

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 07/05/07.
2. ☒ The allowed claim(s) is/are 22-26,28 and 29.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).  
\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.  
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached  
1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.  
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.  
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                              |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>Same</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                                      |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                     |
|   | 9. <input type="checkbox"/> Other _____  |

**DETAILED ACTION**

**Status of Objections and Rejections**

1. Office acknowledges the receipt of Applicant's amendments filed in the paper of July 5, 2007. All previous claim rejections have been withdrawn in view of claim amendments filed in the paper of July 5, 2007 and Examiner's amendment as set forth below.

**EXAMINER'S AMENDMENT**

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Yahua Chen (Reg. No. 55,055) on July 13, 2007.

In the claims:

Claims 16-17 and 20 have been cancelled.

Claim 26 (amended). A transformed plant cell comprising a heterologous DNA sequence that encodes a polypeptide [containing an amino acid sequence] having at least [70]95% [identical] sequence identity to SEQ ID NO:9<sub>1</sub> and [having activity of increasing sensitivity of a plant to an environmental factor] wherein expression of the DNA sequence in said plant cell confers increased sensitivity to ABA relative to an untransformed plant cell of the same species.

Claim 27 has been cancelled.

Claim 28 (amended). A method of producing a transformed plant cell, the method comprising[:] introducing into a plant cell a heterologous DNA sequence that encodes a polypeptide [containing an amino acid sequence] having at least [70]95% [identical] sequence identity to SEQ ID NO:9, and [having activity of increasing sensitivity of a plant to an environmental factor, and expressing the polypeptide in the cell] wherein expression of the DNA sequence in said plant cell confers increased sensitivity to ABA relative to an untransformed plant cell of the same species.

Claim 29 (amended). A method of producing a transgenic plant, the method comprising introducing into a plant cell a heterologous DNA sequence that encodes a polypeptide having at least 95% sequence identity to SEQ ID NO:9, and cultivating the transformed cell [of claim 26] to regenerate [a] the transgenic plant, wherein expression of the DNA sequence in said plant confers increased sensitivity to ABA relative to an untransformed plant of the same species.

Claims 30-32, and 34-35 have been cancelled.

Applicants authorized amendment to claims 26, 28, and 29 to remove 35 U.S.C. 112, 2<sup>nd</sup> paragraph related issues. Applicants further authorized to cancel claims 16-17, 20, 27, 30-32, and 34-35.

The above amendments were made to obviate potential issues under 35 U.S.C. 112, first paragraphs.

### **REASONS FOR ALLOWANCE**

3. The following is an examiner's statement of reasons for allowance: Applicants have developed a transgenic *Arabidopsis* plant comprising introducing and expressing a heterologous DNA sequence of SEQ ID NO: 20 encoding the polypeptide of SEQ ID NO: 9. The transgenic plant cell expressing SEQ ID NO: 9 unexpectedly exhibits increased sensitivity to ABA.

The closest prior art (Lin et al. NCBI, GenBank, Sequence Accession No. AC011623, Pages 1-37, Published January 2001) discloses a polynucleotide sequence encoding a polypeptide which is identical to instant SEQ ID NO: 9. However, the prior art does not teach or suggest any known property associated with the expression of SEQ ID NO: 9 in a plant cell. The prior art does not teach or suggest making a transgenic plant cell or plant expressing the polypeptide to obtain the desired phenotype of increasing sensitivity to ABA. Accordingly, the claimed invention is free of the prior art, has utility, is enabled, and is adequately described.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### **Conclusions**

4. Claims 22-26, and 28-29 are allowed.

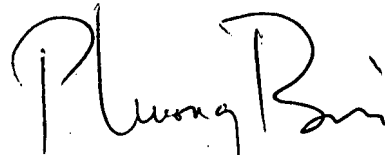
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**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinod Kumar whose telephone number is (571) 272-4445. The examiner can normally be reached on 8.30 a.m. to 5.00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on (571) 272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Phuong T. Bui', with a stylized, cursive script.

PHUONG T. BUI  
PRIMARY EXAMINER